INITIAL STATEMENT OF REASONS
SECONDARY DRINKING WATER STANDARDS
TITLE 22, CALIFORNIA CODE OF REGULATIONS

All suppliers of domestic water to the public are subject to regulations adopted by the U.S. Environmental Protection Agency (EPA) under the Safe Drinking Water Act (42 U.S.C. 300f et seq.) as well as by the California Department of Health Services (Department) under the California Safe Drinking Water Act (Sections 116270 - 116751, Health and Safety Code [HSC]).

Pursuant to HSC Section 116555(a)(1), public drinking water systems are required to comply with secondary drinking water standards. The existing secondary drinking water standards regulations lack clarity and a specific procedure for determining secondary Maximum Contaminant Level (MCL) compliance. Therefore, the Department proposes to amend existing Section 64449, Chapter 15, and adopt two new Sections (64449.2 and 64449.4) into the same chapter to update and clarify the Secondary Drinking Water Standards regulations. The proposed amendments to Section 64449 (Secondary Maximum Contaminant Levels and Compliance) involve a reorganization of the existing requirements, the elimination of the corrosivity standard, and a clarification of the secondary MCL compliance determination procedure. The proposed Section 64449.2 (Waivers for Secondary MCL Compliance) clarifies and incorporates application requirements for secondary MCL waivers from the existing Section 64449. Proposed Section 64449.4 (Use of Sources that Exceed a Secondary MCL and Do Not Have a Waiver) includes proposed requirements for the short-term use of a source that exceeds a secondary MCL.

The draft revisions to the Secondary Drinking Water Standards were developed by an internal Department workgroup. The Department requested stakeholder input through contact with the drinking water industry associations and a posting of the draft regulations on the Department's Drinking Water Program (DWP) website. Several agencies and a Regional Water Quality Control Board provided input, much of which was incorporated in the draft regulations. A second opportunity to directly comment on the draft regulations was provided when they were distributed by email to those who had initially commented and the draft regulations were again posted on the DWP website. No comments were received in response to this second distribution and website posting.

There are no comparable federal regulations for secondary MCLs.

Net Effects

The net effects of the proposed regulations for public drinking water systems are as follows:

- Greater clarity and less ambiguity in the secondary drinking water MCL and monitoring requirements;

- Community water system requirements related to corrosivity would be addressed only in the Lead and Copper regulations (Chapter 17.5);
- Community water systems would determine secondary MCL compliance on the basis of an average of four consecutive quarterly samples for those constituents with fixed consumer acceptance levels;
- Community water systems would have the option via a waiver process to use sequestering for iron and/or manganese treatment to improve the aesthetics of the water if a source has violated the iron and/or manganese MCLs; and
- Community water systems would have specific procedures and criteria for the use of sources exceeding a secondary MCL.

The reasons for the proposed amendments to Title 22 are as follows:

Section 64449. Secondary Maximum Contaminant Levels and Compliance.
The purpose of this existing section is to establish the application of the secondary MCLs, list the MCLs, establish MCL monitoring requirements, and specify how to determine MCL compliance for community water systems. This existing section also includes waiver requirements, but these requirements would be incorporated into the new Section 64449.2.

(a) [existing] Subsection (a) is not clear in regards to the applicability of the MCLs to community water systems; existing Subsection (c) specifies MCL monitoring requirements for community water systems, but the fact that the MCLs apply to only community water systems is not clear in Subsection (a). Therefore, the Department proposes to include the term "community water systems" for clarity. The phrase that begins with the term "because" provides an explanation of why secondary MCLs shall not be exceeded in public drinking water. Since this phrase is not a regulatory requirement, it has been removed from the proposed regulations.

The term "Limits" in the heading of Table 64449-A would be changed to "Levels" and the term "Contaminant" added for clarification and for consistency with its use elsewhere in the regulations; this has no regulatory effect. To reflect that the heading of Table 64449-A, Secondary Maximum Contaminant Levels, could also be known as "Consumer Acceptance Contaminant Levels," quotes have been included around this phrase. "Corrosivity" would be struck because it is thoroughly addressed under the comprehensive monitoring and corrosion control treatment requirements in the Lead and Copper Rule in Chapter 17.5, Title 22.

The heading of Table 64449-B would be amended to include the phrase "Consumer Acceptance Contaminant Level Ranges" after the phrase "Secondary Maximum Contaminant Levels" to add clarity and to be consistent with the terminology in existing Subsection (f) [redesignated (d) in this proposal]. To reflect that the existing heading of Table 64449-B, Secondary Maximum Contaminant Levels, could also be known as "Consumer Acceptance Contaminant Level Ranges," quotes have been included around this phrase. In addition the term "micromhos" has been changed *to "s/cm" because* the

technically correct units for specific conductance are "Siemens" (symbol "S) per centimeter, i.e., s/cm.

(b) and (c) [existing] and (b) [proposed] Existing subsections (b) and (c) would be simplified, reframed and incorporated into proposed subsection (b) for clarity and consistency with the proposed subsection (a). The detail in existing Subsection (b) is not needed, since it reduces to "community water systems." In addition under subsection (b)(2) "pH" has been included as a standard physical parameter since it is typically measured along with the other physical parameters under this subsection.

(c) [proposed] Proposed Subsection (c) would be adopted to clearly detail how a community water system should proceed if a constituent specified in Table 64449.A exceeds an MCL. This includes monitoring procedures for determining MCL compliance, procedures to follow if a violation has occurred, and the option for a community water system to request reduced monitoring frequency from the Department if one year of monitoring results does not indicate a trend toward exceeding MCLs.

The existing regulations appear to suggest that a single sample can constitute an MCL violation. However, this would not be consistent with primary MCL requirements and would be unnecessarily stringent. This subsection would clearly specify that the four-quarter running annual average approach to monitoring be used to determine compliance. This approach is more representative of actual contamination and consistent with other MCL compliance determinations. Further, a single sample does not provide sufficient information for making an MCL compliance determination. Given the ambiguity of the existing Secondary Drinking Water MCL regulations, Department field staff typically request that community water systems conduct additional sampling prior to MCL compliance determinations.

Consistent with other MCL violations, a community water system's reporting of a violation to the Department would be required, so the Department could provide technical support to ensure that appropriate follow up actions are taken by the system.

When a constituent sample result exceeds an MCL, the quarterly monitoring frequency is triggered to obtain a sufficient number of representative samples (four) to determine compliance. Subsequently, continued quarterly monitoring might be necessary if the constituent levels are quite close to the MCL or demonstrate an upward trend. However, if subsequent sampling results indicate trends in the data demonstrating that the source is unlikely to violate the MCL, the Department would approve reduced monitoring; however, if seasonal peaks have been noted, monitoring at such times would be required.

(d) and (e) [existing] For clarity and better organization of the secondary drinking water standard regulations, the requirements in these existing subsections would be reframed and incorporated into proposed Section 64449.2, which would establish all the waiver-related requirements.

(f) [existing] The term “community water” would be added to the term “systems” for clarity and the subsection would be redesignated (d) to maintain sequencing.

(g) [existing] The term “community water” would be added to the term “systems” for clarity and the subsection would be redesignated (e) to maintain sequencing.

(h) [existing] This subsection would be redesignated “(f)” and the citation updated to refer to the correct subsection in the proposed regulations. In addition the term “community” would be added to the term “water system” for clarity.

(i) [existing] This subsection would be redesignated “(g)”. Paragraph (1) would be incorporated into the main subsection and paragraph (2) would be struck since there has been no demonstrated necessity for collecting the additional data during the implementation of this existing requirement.

“Specific conductance” would be added to the list of constituents because Department field staff use this data as an indirect indicator of the level of total dissolved solids (TDS), and TDS is an aesthetic quality. The existing requirement for nontransient-noncommunity water (NTNC) systems to collect this type of data at least once (a one-time monitoring requirement) was established some years ago to provide Department staff with sufficient information to determine whether the water quality would be within an acceptable range for drinking purposes. “Acceptable” is a subjective term; however, the Department staff have sufficient field experience to identify sources that would be likely to pose problems (e.g., avoidance by consumers), even for nonresident consumers. If the Department’s evaluation of the data suggested that the source would pose aesthetic water quality problems, the Department would recommend that the NTNC water system seek another source, if one is available. There are no associated follow-up monitoring, compliance, or treatment requirements because NTNC systems serve nonresidents and treatment costs related to any additional requirements would not be justifiable.

NTNC water systems would be required to monitor at least once for the constituents in Tables 64449-A and -B; this should not be burdensome, since many of these systems should have already collected much of this data under other regulations, e.g., the primary MCL requirements and the unregulated chemical monitoring requirements. The reasons for collecting such data are the same as for the specific conductance (see above)---to further characterize the aesthetic qualities of the source. Some NTNC water systems are actually schools; if students are served water that is not pleasing, they will avoid drinking it which is ultimately not beneficial to their health. Therefore, it is important that aesthetic quality data be collected so that both the NTNC water system and the Department can evaluate the source and determine whether it might be advisable to seek a different source of supply. Further, if there is more than one source available, such data is helpful in determining how to manage the use of the sources.

64449.2. Waivers for Secondary MCL Compliance.
This proposed section would establish the requirements related to the application for a secondary MCL compliance waiver for the MCLs in Table 64449-A, including criteria for eligibility, application procedures, and the use of sequestering. Most of the requirements are essentially the same as those in the existing section 64449 (d) and (e). Including the option of sequestering for iron and/or manganese in the waiver application process reflects the fact that sequestering has been useful and cost-effective for many community water systems with iron and/or manganese problems. Establishing regulatory requirements for an iron and/or manganese waiver would ensure consistency throughout the state.

(a) This subsection would specify the general waiver eligibility criteria for the type of source, and the criteria for the level and type of constituent.

To ensure that the aesthetic quality of the water is maintained at a reasonable level, the Department would not allow levels greater than three times the secondary MCL in the water, because past experience has shown that three times is generally the outside limit of consumer acceptability. To protect public health, for constituents with no primary MCL, if a state notification level (health guidance advisory level; Health and Safety Code 116455) exists, that level would be used as a criterion for eligibility.

Only existing systems would be eligible consistent with existing section 64449 (d). Any new system applying for a permit would be required to comply with the secondary MCLs in Table 64449-A.

There would be two additional criteria for an existing community water system requesting a compliance waiver for a new source. First, the Department would not consider a waiver for source compliance if the source were intended to expand system capacity for further development (expansion of the water system service area to serve new commercial and/or residential facilities). The rationale is that the consumers to be served (i.e., customers that would be served by the new facilities) could have no voice in the matter (one of the elements of the waiver process), the developer of the new facilities should be responsible for ensuring that the future residents receive the highest quality water possible before proceeding to build, and the source would not be essential to meet existing community water system demand.

Further, since the quality of the existing system's water could be affected by the new source's quality, the Department proposes to limit the concentration of the constituent so that it is not higher than 20% of the level in the existing supply to minimize any potential impact. This percentage is based on the Department's experience with water quality, which has established that an incremental change of 20% or less is not likely to cause a significant change in the aesthetic quality of the water for consumers. For some constituents, an incremental change that exceeds 20% could lead to greater consumer dissatisfaction.

(b) The purpose of this subsection is to specify the requirements for a secondary MCL waiver application so that: (1) The water system thoroughly evaluates the current situation related to the MCL violation, considers all the alternatives for addressing it, and obtains customer input on the problem and alternatives for resolution; and (2) the Department has the information necessary to determine whether the MCL violation should be addressed by treatment or waived and, if treated, how. The information consists of the customer complaint log [pursuant to Section 64449.5(a)(2)], engineering report on alternative treatments and costs, the results of a customer survey, and a report on a public meeting. The proposed requirements are essentially a clarification of the existing requirements [Subsections 64449 (d) and (e)] that are vague and confusing. The engineering report is required to be prepared by a registered and experienced engineer to help ensure a technically comprehensive and accurate evaluation of alternatives and costs.

The objective of the survey is to provide the customers with an informed opportunity to vote on how the community water system should proceed, given that the aesthetic quality of the water is less than acceptable as determined by the secondary drinking water MCLs. The primary options are to live with the existing water quality or be subject to a drinking water bill increase to improve the aesthetics. Content requirements for the customer survey are specified to ensure that sufficient information is provided to the customers, and that the necessary questions are clearly asked in such a manner that the customer understands what the choices are and can make an informed decision regarding a bill increase for treatment or status quo water quality. The framing of the questions are derived from District Field Office staff experience with such surveys and the surveys that were the most successful in terms of response rate and useful results. The statement in Paragraph (3)(D) has been successfully used in this type of survey to obtain a higher response rate to the survey.

The existing requirement to hold a public meeting provides an interactive process to present the customer survey results and the engineering report; typically, water systems announce such meetings in their bill mailings or send a separate mailing to all their customers. The meeting ensures that customers have sufficient opportunity to obtain information and express their opinions related to the decision to be made: Status quo water quality versus increased bills for treatment to improve the quality. The requirement to submit a report of the agenda, list of attendees and transcript of the meeting to the Department is new. This is part of the information the Department needs for evaluating the waiver application and to ensure that the customers have had the opportunity to weigh in on the decision.

(c) The purpose of this subsection is to specify additional requirements for a water system seeking a waiver for the iron and/or manganese secondary MCLs. The proposed language requires that the alternative of sequestering be considered during the waiver process because it eliminates the aesthetic issues related to the presence of iron and manganese, but does not actually remove the constituents (i.e., iron and manganese are actually still present in the water). To be considered, sequestering

would need to be evaluated in the engineering report and included in the customer survey as specified in this subsection. For some water systems, sequestering can be the preferred alternative since it is generally less costly than removal treatments. The use of sequestering technically requires a waiver because the constituents are not removed. This query must be included in the survey to allow customers to consider this option as an alternative to "no treatment" and "treatment."

(d) and (e) The purpose of these subsections is to establish criteria for the response rate on the customer survey required to assess the customers' preferences related to the proposed waiver for a secondary MCL. The Department believes that the water system's survey should achieve at least a 50% response rate to provide a reasonable assessment of the customers' preferred solution to the problem. The 50% is based on the Department's experience with surveys conducted under the existing regulations. In most cases, if the water system does a reasonable job presenting the survey to the customers, a 50% response rate is achievable on the first survey; at most a second survey would be necessary (as required by the proposed regulations). The results provide a sufficient level of customer input on which to base a waiver determination. In the Department's judgment, a waiver determination made with less than 50% customer input does not have a sufficient basis. Hence, if the 50% rate is not achieved on the first survey, the system is required to conduct another which it can send to all the customers or just follow-up on those that did not respond to the first survey; three months is provided for survey preparation and distribution. The Department has overseen these surveys in the past and three months is sufficient time for the task.

If the sum of the percentages of those not responding and those voting for removal treatment exceeds 50%, the system is then required to proceed with removal treatment. The basis for this approach is that the Department believes the conclusion can be drawn that the non-responding customers are not that concerned with how the drinking water quality problem is resolved. As mentioned above, they are clearly instructed in the survey that a "non-response" will be interpreted as a vote for treatment. The Department considers treatment to remove the contaminant the most desirable approach to MCL compliance.

Regardless of the outcome of the survey, the results are submitted as part of the waiver application and a subsequent public meeting held to discuss the proposed waiver and survey results [see existing regulation Subsection 64449(d)(3)(A) which has been incorporated into proposed Subsection 64449.2(b)(4)].

(f) This section is necessary to establish the criteria for interpreting the customer survey results when sequestering is one of the alternatives, and to ensure that a water system has done a comprehensive evaluation of sequestering.

The rationale for summing those voting for treatment and those voting for sequestering, then comparing the sum to the number of those voting for no action, is that this "sum" represents those customers wanting something to be done about the water quality

problem. If the summed number exceeds the "do nothing" number, then the aesthetics problem should be addressed in some way to meet the customers' desire, using the alternative with the highest percentage of votes. If sequestering is the preferred alternative, the Department requires the technical details on sequestering listed in Paragraphs (1) through (4) to be submitted to the Department for review and approval. Pilot testing or a reasonable alternative evaluation, details on feed rate and equipment, an operations plan, and a cost estimate are technical details the water system must have before it can proceed with sequestering. Department review of this information ensures that the water system has been thorough in its technical and economic evaluation of sequestering for its water source and developed an operations plan that will support effective sequestering.

(g) The purpose of this subsection is to provide for waiver renewals. The required submittals for waiver renewals are intended to provide the Department with an adequate basis for making a determination. The Department would need to consider all the monitoring and treatment operations data and any customer complaints during the waiver period. The six months lead time is intended to provide the Department with sufficient time to review the application, require that a customer survey be conducted before the waiver expiration if indicated by the compliance records, and make a determination on the waiver.

64449.4. Use of Sources Without a Waiver that Exceed a Secondary MCL.
The purpose of this proposed section is to provide criteria and procedures for the use of sources exceeding one or more secondary MCLs to ensure that sources taken out of active service as the result of secondary MCL exceedances are available for special situations, but only used on a very limited basis. The sources should be used in a manner similar to those in existing Section 64414 (Standby Sources) that addresses the use of sources that have been designated as standby sources, usually as the result of primary MCL exceedances.

(a) Requiring that the source's flow be monitored provides data on its use and would help the Department to ensure that the source is being used as required. This data would be provided to the Department in the system's Annual Report to the Department, a requirement that is included in water system permits.

(b) Provides clarification as to what constitutes a "day" with regard to Section 64414(c) [Standby Sources] which limits the source's use to not more than 5 consecutive days or 15 days total in a year. The intent is to protect consumers from receiving water that is substandard quality over an extended period of time.

(c) Since the public has a right to know about the water it is being served, information related to short term use is required in the Consumer Confidence Report [Section 64480 et seq.].

(d) If possible, people should be notified prior to the use of a source not meeting a secondary MCL, in case they might wish to modify their uses of the water accordingly, e.g., buy bottled water, and not use the water for washing clothes.

(e) To avoid any adverse effects on the water that is distributed to the public during periods when the contaminated source is not in use, after the contaminated source is taken off line, corrective actions are required to ensure that any residual constituent from the source used on a short-term basis is removed from the drinking water distribution system. Distribution system flushing is a common technique for removing such residual levels.

CEQA COMPLIANCE

The Department finds that adoption of the subject regulations constitutes action by a regulatory agency, which action is expressly authorized by state statute for protection of the environment and does not involve the relaxation of any standard for protection of the environment; and is therefore categorically exempt from compliance with the California Environmental Quality Act (CEQA) as a Class 8 exemption pursuant to 14 CCR 15308.

Secondary MCL Regulations Revisions Stakeholders Group

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